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# Before the FEDERAL COMMUNICATIONS COMMISSIORECEIVED Washington, D.C. 20554 FFB 6 2001

In the Matter of	DOORST FILE COPY ORIGINAL PROBENT COMMINICATIONS COMMINICATIONS COMMINICATIONS
Amendment of the Commission's Rules Concerning Maritime Communications	) PR Docket No. 92-257 )
Petition for Rule Making filed RegioNet Wireless License, LLC	)

## **COMMENTS**

Paging Systems, Inc. ("PSI") hereby respectfully submits its Comments in the above captioned matter. In support, PSI shows the following.

# I. Background

1. PSI is a Commercial Mobile Radio Service provider offering service to the maritime community by AMTS licenses under Part 80 of the Commission's Rules, on the west coast of the United States from Mexico to Canada and in Hawaii. It also has licenses for AMTS facilities on the east coast from Maine to Puerto Rico, as well as in the Great Lakes area. Accordingly, PSI has significant interest in the Commission's proposals concerning the future licensing and operation of AMTS systems; and it is qualified to advise the Commission in the above referenced matter.

# II. Comments

# **Geographic Licensing Plan Should Be Adopted**

2. PSI agrees that the current rules for authorization of AMTS facilities have restricted the development of AMTS service. Grant of all future AMTS authorizations by geographic areas will expedite the provision of services on this scarce spectrum.

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3. PSI also agrees that the Commission's current application procedures have resulted in delays in granting authorizations and have produced application and litigation costs which should be avoided by the use of geographic licensing. The existing procedures have not met the goal of providing parity among competing services and have impaired the provision of nationwide AMTS service in competition with other CMRS providers.

#### **Band Manager Licensing Is Not Appropriate**

- 4. PSI submits that the establishment of band manager licensing in the AMTS band would not further the public interest. The band manager plan could be appropriate to spectrum on which there is no established service, such as in the 700 MHz band, but establishing a band manager scheme for AMTS would not be necessary for spectrum that has already been licensed; is being used; and is not used as diversely as proposed in the 700 MHz band.
- 5. To the extent that diverse uses of AMTS spectrum may be desirable, those uses can be accommodated by partition and disaggregation by licensees. PSI supports the provision of Commission authority to allow AMTS licensee to disaggregate spectrum or partition territory. Both mechanisms help to assure that all AMTS spectrum is put to the best possible use for the public.

#### Smaller Number of Geographic Areas Should be Adopted

6. Although a large number of VHF Public Coast Areas ("VPCs") in the 156-162 MHz band (the "VHF band") was appropriate to that band, PSI submits that a smaller group of AMTS Public Coast Areas ("APCA") should be used for AMTS geographic licensing. In the VHF band, the Commission encountered a situation in which it had only

a small number of channels to offer and many of those channels were already authorized in both major maritime areas and in inland rural areas. Further, the VHF spectrum was shared by private land mobile licensees in inland areas. However, in the AMTS band, spectrum was allocated, but the Commission's Rules have prohibited the development of AMTS over much of the nation. PSI submits that the Commission should adopt a group of nine APCAs more closely tailored to existing AMTS service areas to maximize the incentive for licensees to make the best use of the spectrum.

- 7. As shown by the map attached hereto, it is suggested that the Commission retain the Atlantic, Pacific and Great Lakes coastal VPCs of the contiguous United States, namely, VPCs 1, through 7. The Commission should also retain APCA 9, Alaska. The inland VPCs adjacent to the VPCs having coastal exposures should be merged with coastal VPCs: specifically, VPCs 8, 34, 36, 37, 41 and 42 should be merged with VPC 6 to form the Southern Pacific APCA. VPCs 30 through 33 should be merged with VPC 7 to form a Northern Pacific APCA.
- 8. While the Commission proposed a single inland geographic area, PSI submits that competitive interest will be greater if the Commission adopts two inland APCAs. VPCs 10 through 18, 22, 24, and 25 should be merged with VPC 4 to form the East Central APCA. VPCs 19, 20, 21, 23, 26 through 29, 35, and 37 through 42 should form the West Central APCA (APCA 8). These adjustments will provide both economic

Because of its close maritime economic connection with California, Hawaii should be part of the Southern Pacific APCA.

relevance to the inland APCAs and improve the potential for viable competitive bidding for the service opportunities.

9. Although there had been a close connection between the VHF Public Coast service, with its requirement for monitoring Channel 16, and the United States Coast Guard, no such relationship exists for AMTS operators. Therefore, market realities, rather than the administrative zones of the Coast Guard, should determine the definition of AMTS geographic areas. Existing AMTS operators presently serve larger market areas than the VHF Public Coast service. Adoption of a larger number of geographic licensing for AMTS could extend competitive bidding, increasing the transaction costs of the Commission and competing bidders with no compensating benefit to the public. Therefore, the Commission should adopt the APCAs offered herein.

# Only One Licensing Scheme Should be Used

10. It is submitted that it is not efficient to apply different licensing schemes to the two currently available AMTS frequency groups. The division of channels or frequency groups among nationwide, regional, and local geographic areas might have been useful in the 220-222 MHz band, which had no established service, but such a scheme would not be applicable for AMTS. Employing different licensing schemes for different AMTS channels would complicate the licensing process and obstruct or delay acquisition of sufficient spectrum to provide an efficient service to the public. Any irregular licensing scheme could severely diminish applicant interest in obtaining licenses by competitive bidding.

#### No Set Aside Should be Made for Non-Conforming Use

- The Commission has recently allocated 24 MHz of UHF spectrum in the 700 MHz band for use by public safety entities, which has not begun to be used. Allocating fewer frequencies for geographic licensing of AMTS in favor of a set-aside would create operational problems for incumbent operators using all currently allocated channels. If AMTS is to offer a service which can compete with other CMRS operators, AMTS needs the spectrum which has been allocated for it.
- 12. The VHF 156-162 Public Coast band is enclosed within the 150-174 MHz land mobile band. On that basis, it might be appropriate for public safety agencies to use the VHF Public Coast channels on their existing equipment. For public safety agencies to use the 216-220 MHz band, however, they would require new equipment, which would not necessarily be interoperable with their existing equipment or with the equipment of related agencies. Therefore, the reasons which supported the allocation of some VHF channels to Public Safety use do not exist to support the allocation of the AMTS spectrum.

#### **Incumbent Protection for AMTS Service**

13. PSI submits that the Commission's proposed standards for protection of systems from interference are not sufficient and would result in the destruction of AMTS service. As argued below, greater protection is clearly required.

#### The Established Service Area Definition Should be Maintained

- 14. Current AMTS licensees designed their systems and commenced their provision of service to the maritime public on the basis of the 17 dBu service area definition provided by Subpart P of the Commission's Part 80 Rules. The 17 dBu service area definition provides continuity of service without the excessive costs, which would result from a higher defined signal level. If the service area of an AMTS station had been based on a higher signal level, then incumbents would have needed more coast stations to provide the required continuity of service.
- 15. Were the Commission now to define the service area of an AMTS station by use of a 38 dBu contour, existing service to the maritime public would be disrupted or destroyed. Incumbent stations provide reliable, continuous service at their existing geographic spacings. If incumbent stations' contours were defined at a level higher than 17 dBu, a geographic area licensee could fill-in co-channel facilities between incumbent stations and interrupt the maritime public's service from incumbents.
- 16. Incumbent systems have been designed, authorized and are operating on the basis of a 17 dBu service area signal level. It the Commission adopts its proposal for a 38 dBu service area contour, it should have to demonstrate changed circumstances to justify the change in the rules. Since there have been no relevant changes in circumstances, the Commission would be unjustified in modifying the established service area signal level definition.

#### Greater Protection of Incumbent Stations Required

- which it has previously applied to the 220-222 MHz band, it is submitted that the only relationship between the 220-222 MHz band and the AMTS band is that they are located between 216 and 222 MHz. The standards which were adopted for use in the 220-222 MHz band could prevent incumbent AMTS systems from operating when confronted with geographic based stations. Because of the narrow channel bandwidths adopted in the 220-222 MHz band, the Commission essentially forced the use of amplitude compandored single sideband operation in that band. 10 dB of protection may be sufficient in an amplitude modulation situation, although even in that case it is still uncertain that 10 dB of protection has been sufficient in that band because many 220-222 MHz band stations have little end user activity. However, existing AMTS systems use frequency modulation and suffer different modes of interference from those suffered by AM stations.
- 19. Further, the Commission's experience in the 800 and 900 MHz bands has shown that 10 dB of protection is not sufficient for reliable operation of a digitally controlled trunked system, which is also the case in an AMTS system. In its original 800 MHz band rules, the Commission adopted a 10 dB protection ratio. However, the field experience of Motorola, Inc., in particular, revealed that 10 dB was inadequate and that a protection ratio between 14 and 17 dB was required for reliable operation of an FM trunked system. Accordingly, the Commission amended its rules to provide a protection ratio of 18 dB between stations.

- 20. While the Commission has used a 12 dB protection ratio for VHF stations, that ratio has been premised on conventional, manual operation, and not on trunked, automated operation. The traditional use of operators in the VHF Public Coast service accustomed VHF users to certain levels of interference between co-channel stations, but more modern, automated systems, such as cellular and PCS, have now elevated customer expectations such that interference between systems is not commercially viable.<sup>2/</sup>
- 21. While protection based on service area and interference contours is of greatest importance to incumbents and presents the greatest challenge to the Commission to select the correct standard, the matter of limiting signal strength at the boundary between geographic area systems also requires some consideration. The geographic area licensees will have to coordinate with each other if they are to provide service near the boundaries of their areas. Therefore, the permissible signal level at the boundary between geographic area systems must be a standard which it will not be necessary to enforce. PSI would not object to the proposed +5 dBu boundary level proposed by the Commission.

## Litigation Must be Reduced

22. PSI supports the Commission's proposal to modify its rule which currently requires that an AMTS applicant state that, in an urbanized area, its location is the only suitable location. That requirement has engendered wasteful litigation and it should be eliminated. Although the Commission proposed to modify the rule, it is submitted that

The protection standard of 12 dB has been acceptable for AMTS to date primarily because co-channel coastal AMTS operators are not geographically adjacent to one another and because an AMTS operator cannot currently be confronted with a geographically adjacent co-channel operator inland. However, with geographic licensing, that will not continue to exist. Therefore, the 12 dB standard cannot be expected to be acceptable in an environment of geographic licensing nationwide.

that requirement in any form may still be litigated in the geographic licensing context.

Thus, the requirement should not be included in the geographic licensing scheme.

- 23. Although the NPRM at paragraphs 39 and 40 states that broadcaster notification and an engineering study is necessary if a station is within a certain proximity to a television broadcast station, it is not clear whether the Commission would require the filing of an application for such an AMTS station. If the Commission was proposing to require the filing of such an application, it should not adopt such a requirement. PSI would have no objection to a requirement for the AMTS licensee to notify a broadcaster, but requiring an application for a specific station in the context of geographic area licensing nationwide would provide an increase in Commission's processing and litigation burdens.
- 24. PSI does not support the Commission's tentative conclusion that the engineering study requirement should be continued in the context of geographic area licensing. Because the Commission does not intend to require geographic area licensees generally to file applications for specific stations at specific sites, the public interest would not be served by requiring the preparation and filing of an engineering study with respect to any specific site. PSI accepts its obligation to avoid causing interference to television reception on Channels 10 and 13 and to remedy any interference which may occur. An AMTS licensee has every interest in selecting a site and operating parameters which will allow provision of service indefinitely without causing interference to television reception. The AMTS geographic area licensee's own self interest will be sufficient to allow the Commission to reject the requirement for the preparation of an engineering study and the filing of an application for each station.

#### **Service Requirements**

- 25. PSI supports the Commission's proposal to modify its service requirement to remove the requirement to serve minor waterways. A geographic area based AMTS licensee should not be required to serve any such minor waterway, as long as marine-originated traffic is given priority over other traffic.
- 26. PSI supports the Commission's proposal to require a set level of service at five or ten year benchmark dates, depending on the presence of major waterways within the area. Consistent with the Commission's providing parity between geographic area SMR licensees and incumbent wide area SMRs, the Commission should provide the same, longer construction periods to incumbent AMTS licensees as it provides to geographic licensees.

#### **Technical Flexibility Should be Expanded**

- 27. AMTS systems should be permitted to compete as fully as possible with all other CMRS operators. Therefore, the Commission should adopt its proposal to expand the technical flexibility of AMTS systems to permit the routine transmission of data.
- 28. New and exciting services will require innovative and increasingly efficient methods of operation. Therefore, PSI supports the Commission's proposal to permit AMTS licensees to use any form of data emission within their authorized spectrum.

## **Bidding Credits For Small and Very Small Businesses**

29. PSI agrees with the Commission that bidding credits should be provided for small businesses and very small businesses. As the economy declines, it is small business with its limited access to capital that often suffers first. The Commission should take the state of the economy into account in structuring its rules and should provide opportunities for small businesses to compete for the spectrum.

#### Conclusion

For all the foregoing reasons, PSI respectfully requests that the Commission amend its Rules as suggested herein.

Respectfully submitted,

PAGING SYSTEMS, INC.

By:

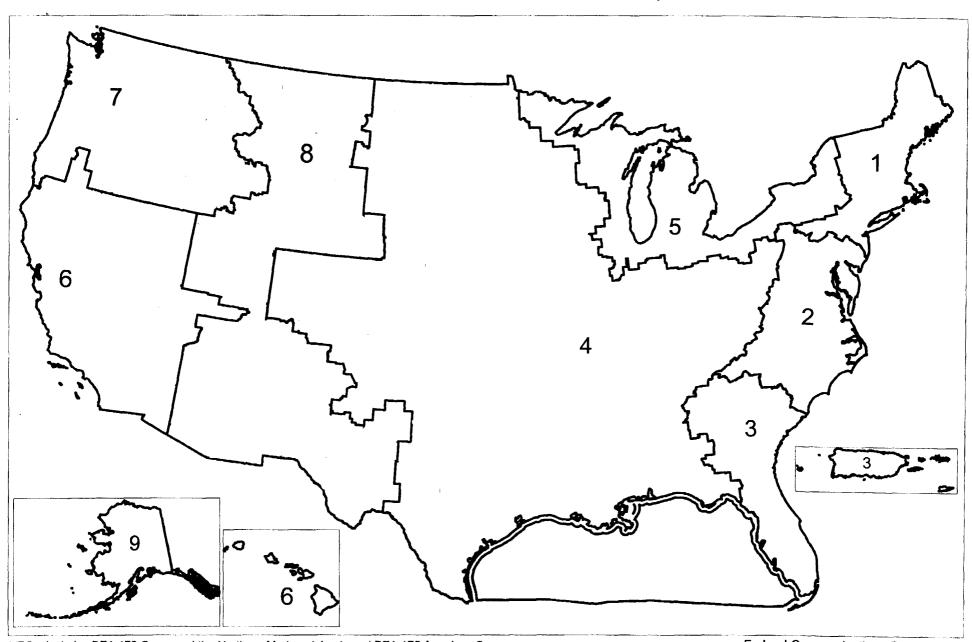
Audrey P. Rasmussen

Its Attorneys

Hall, Estill, Hardwick, Gable, Golden & Nelson, P.C. 1120 20th Street, N.W. North Building, Suite 700 Washington, D.C. 20036-3406 (202) 973-1210

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# AMTS Public Coast Station Areas (APC)



VPC 6 includes BEA 173 Guam and the Northern Mariana Islands and BEA 175 American Samoa VPC 4 includes BEA 176 Gulf of Mexico

Federal Communications Commission Wireless Telecommunications Bureau